Supreme Court of the United States

OCTOBER TERM, 1903.

EX PARTE HERMAN TRASCH, Petitioner.

Petition for Writ of Habeas Corpus.

Press of Byron S. Adams, Washington, D. C.

Supreme Court of the United States

OCTOBER TERM, 1902.

EX PARTE HERMAN FRASCH, PETITIONER.

Application for Leave to File Petition for Writ of Mandamus.

And now, to wit, this 23d day of March, 1903, comes the above-named petitioner, by his attorney, and applies to the Supreme Court of the United States for leave to file the petition, hereto accompanying as part hereof, for a writ of mandamus, directed to the Chief Justice and associate justices of the Court of Appeals of the District of Columbia and commanding them to hear and determine this petitioner's appeal to said court from the decision of the Commissioner of Patents rendered January 23, 1902, and to revise said decision on the points involved in the reasons assigned to the Commissioner.

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

IN THE SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1902.

Ex Parte HERMAN FRASCH, *Petitioner.*

Petition for Writ of Mandamus.

To the Chief Justice and Associate Justices of the Supreme Court of the United States:

Your petitioner, Herman Frasch, respectfully represents as follows:

1. Prior to November 13, 1899, he had invented or discovered a new and useful improvement in the art of making salt by evaporation of brine, which said improvement consists of certain new and useful means for removing incrustation of calcium sulphate from brine-heating surfaces, and was originally and first invented by him, and was not known or used by others in this country before his invention or discovery thereof, and was not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof or more than two years prior to the filing on November 13, 1899, of his under-mentioned application, and was not in public use or sale in this country for more than two years prior to his said application, and was not abandoned, and was not the subject of an application for a foreign patent in any country by or in behalf of your petitioner or his legal representatives or assigns at any time prior to the filing of the application aforesaid in this country, and for which said improvement he was and is justly entitled to a patent under the law (sections 4886 and 4887, Revised Statutes, as amended March 3, 1897).

2. On or before November 13, 1899, in order that he might receive a patent for his said invention or discovery, he made application therefor, in writing, to the Commissioner

of Patents, and did file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it appertains to make, construct, compound, and use the same, and did explain the principle of his said invention or discovery and the best mode in which he contemplated applying that principle, so as to distinguish it from other inventions, and he did particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery, and did sign such specification and claim as inventor and caused the same to be attested by two witnesses, and did furnish and file in the Patent Office one copy of two sheets of drawing whereof each sheet was signed by his attorney-in-fact and attested by two witnesses, and did make oath before a person within the United States authorized by law to administer oaths that your petitioner does verily believe himself to be the original and first inventor or discoverer of the improvement for which he solicits a patent, and that he does not know and does not believe that the same was ever before known or used, and did state that he is a citizen of the United States, and your petitioner did file such application complete, ready for examination, on said November 13, 1899, and did at the same time pay the fee required by law on filing an original application for a patent, and did generally comply with all and singular the provisions of law touching the making and filing of applications for patents (sections 4888, 4889, 4892, 4934, Revised Statutes).

3. On November 13, 1899, the Commissioner of Patents informed your petitioner that the papers were duly filed and that the application for a patent would be taken up for examination in its order (section 4893, Revised Statutes).

4. On December 16, 1899, the Commissioner notified your petitioner of the examiner's action, the effect of which was to

reject his claim for a patent for reasons given briefly in the official communication (section 4903, Revised Statutes).

5. After receiving such notice, your petitioner persisted in his claim for a patent without altering his specifications, and so informed the Commissioner, to wit, on December 13, 1900; whereupon it became the duty of the Commissioner to order a re-examination of the case (section 4903, Revised Statutes).

6. On December 31, 1900, the Commissioner notified your petitioner of the examiner's further action, whereby the examiner repeated and insisted upon his former objection.

7. On October 5, 1901, your petitioner requested a reconsideration.

8. On October 21, 1901, the Commissioner notified your petitioner of the "final" decision of the examiner, the effect of which was that your petitioner's claims became twice rejected (section 4909, Revised Statutes).

9. On December 13, 1901, your petitioner appealed in due form of law from the decision of the primary examiner to the board of examiners-in-chief, and paid the fee for such appeal (sections 482, 4909, and 4934).

10. The examiner refused to allow the appeal, and, upon your petitioner's request for reconsideration of such refusal, did repeat the same.

11. On December 19, 1901, your petitioner filed a written petition to the Commissioner in person and prayed him:

First. To make such order or action as that the appeal to the examiners-in-chief might be heard by them.

Second. Personally to entertain the appeal in the event of his refusing the first prayer.

Third. To make such order or action as might protect your petitioner's legal rights.

Fourth. To advise the examiner that his objection be not insisted upon and to direct him to proceed with the application.

Fifth. To administer such other or further relief as might be proper in the premises (section 481, Revised Statutes).

12. On January 23, 1902, the Commissioner rendered his decision, the effect of which was and is to reject your petitioner's claims or claim for a patent and to refuse to him a patent on application (sections 4911 and 4915, Revised Statutes).

13. On March 4, 1902, your petitioner appealed to the Court of Appeals of the District of Columbia, and gave notice thereof to the Commissioner, and did file in the Patent Office, within the time appointed by the Commissioner, your petitioner's reasons of appeal specifically set forth in writing (sections 4911 and 4912, Revised Statutes; section 780, Revised Statutes District of Columbia; section 9, act of February 9, 1893).

14. Your petitioner, in furtherance of his appeal, in due season laid before the court certified copies of all the original papers and evidence in the case by filing said copies with the clerk of said court and making the requisite deposit for costs and expenses of the appeal, and did file in the case a petition addressed to the court, and praying that his appeal might be heard upon and for the reasons assigned therefor to the Commissioner, and that said appeal might be determined and the decision of the Commissioner be revised and reversed, that justice may be done in the premises, and did cause the record to be printed and otherwise did

duly and in all respects perfect his said appeal in accordance with law (section 4913, Revised Statutes; Rules of Court of Appeals, D. C.).

15. The Commissioner gave notice to your petitioner of the time and place for hearing said appeal (section 4913, Revised Statutes).

16. At the time noticed the Commissioner moved the court to dismiss the appeal for lack of jurisdiction in the court to hear the same.

17. The court, by its opinion rendered June 23, 1902 (100 O. G., 1977), refused to hear and determine your petitioner's appeal to it and to revise the decision appealed from (section 4914, Revised Statutes).

18. On January 21, 1903, your petitioner moved the court:

(1.) To reinstate his appeal.

(2.) To hear and determine his appeal.

(3.) To revise the decision appealed from upon all and several the points set forth in the reasons of appeal.

(4.) To remand the case with directions if further proceedings in the Patent Office should be deemed necessary or desirable.

(5.) To make such other or further order and to grant such other or further relief as may be proper in the premises.

19. Subsequently the court denied said motion.

20. Annexed hereto as exhibits forming part hereof are copies of (*a*) the printed record prepared and indexed under the supervision of the clerk of the court; (*b*) the Commis-

sioner's return; (*c*) the opinion of the Court of Appeals refusing to hear and determine the appeal; (*d*) brief in support of the motion to reinstate and for other relief.

On pages 13 and 14 of the last-mentioned brief extracts from some decisions are given, to which it may not be amiss to add the following references:

(*f.*) To Merrill *vs.* Yeomans and the Telephone Cases, in which the Supreme Court of the United States said:

> "If all which is described as new in these specifications is really so, the inventor has a right to a patent for three inventions:
>
> "1. For a modification or improvement in the distilling apparatus.
>
> "2. For a new process or mode of distilling heavy hydrocarbon oils, by which they can be deprived of their offensive odors.
>
> "3. For the product of this new process of distillation, namely, the deodorized heavy hydrocarbon oils fitted for use in the arts" (Merrill *vs.* Yeomans, 94 U. S., 568).
>
> "The law has given the discoverer and inventor the right to a patent—as discoverer for the useful art, process or method of doing a thing he has found and as inventor for the means he has devised to make his discovery one of actual value" (the Telephone Cases, 126 U. S., 1).

21. The refusal of the Court of Appeals to hear and determine the aforesaid appeal and to revise the decision appealed from deprives your petitioner of a legal right vested in him by the laws of the United States; and for such deprivation he has no remedy, certainly no adequate remedy, unless the Supreme Court of the United States shall interfere by writ of mandamus.

Wherefore your petitioner prays that a writ of mandamus may be issued by said Supreme Court to the chief justice and

associate justices of the Court of Appeals of the District of Columbia, commanding them to hear and determine your petitioner's said appeal and to revise the decision appealed from in accordance with law.

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

DISTRICT OF COLUMBIA, *ss:*

Personally appeared Charles J. Hedrick, of Washington, D. C., who, being duly sworn, deposes and says that he has read the foregoing petition and knows the contents thereof, and the same is true to the best of his knowledge, information, and belief.

That he has been solicitor and of counsel for the said Herman Frasch from the time of filing the latter's application for letters patent of the United States up to and including the present time; that he has conducted and managed all matters relating to such application for patent and is fully conversant with all said matters.

CHAS. J. HEDRICK.

Sworn to and subscribed before me this 14th day of March, 1903.

CORNELIUS ECKHARDT,
Notary Public.

Seal

COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

APRIL TERM, 1902.

PATENT APPEAL DOCKET.

No. 201.

IN THE MATTER OF THE APPLICATION OF HERMAN FRASCH.

APPEAL FROM THE COMMISSIONER OF PATENTS.

(SERIAL No., 736,843.)

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In the Court of Appeals of the District of Columbia

In the Matter of the Application of HERMAN FRASCH. No. 201, Patent Appeal Docket.

1 In the Court of Appeals of the District of Columbia.

In re Application for Patent of HERMAN FRASCH, Serial No. 736,843, Filed November 13, 1899. No. 201, Patent Appeal Docket.

Improvements in Means for Removing Incrustation of Calcium Sulphate from Brine-heating Surfaces.

To the Court of Appeals of the District of Columbia:

Your petitioner, Herman Frasch, formerly of Cleveland, in the county of Cuyahoga and State of Ohio, respectfully represents:

That he is the original and first inventor of certain new and useful improvements in means for removing incrustation of calcium sulphate from brine-heating surfaces.

That on the 13th day of November, 1899, in the manner prescribed by law, he presented his application to the Patent Office, praying that a patent be issued to him for said invention.

That such proceedings were had in said office upon said application as that on the 23d day of January, 1902, it was rejected by the Commissioner of Patents and a patent for said invention was refused him.

That on the 4th day of March, 1902, your petitioner, pursuant to sections 4912 and 4913, Revised Statutes of the United States, gave notice to the Commissioner of Patents of his appeal to this honorable court from his refusal to issue a patent to him for his said invention upon said application, as aforesaid, and filed with

2 him, in writing, the following reasons of appeal:

First. The authority exercised by the Commissioner of Patents, with the approval of the Secretary of the Interior, in establishing or attempting to establish rule 41 is invalid, because unconstitutional. Among the many grounds of unconstitutionality the following few are here set forth by way of example, namely:

A. The rule is in contravention of section I of article I, which section vests all the legislative powers of the Constitution in Congress and not in any executive officer or officers.

B. The rule is in contravention of that paragraph of section VIII of article I, which paragraph grants the power to secure to inventors the exclusive right to their respective discoveries, but said rule operates to deprive inventors whose discoveries cover new processes, re-

quiring new apparatus to make the same practically useful, of the exclusive right to either their said new processes or their said new apparatus, although said processes and said apparatus must both be disclosed by such inventors in order to obtain any exclusive right whatsoever.

C. The rule is in contravention of the clause of article V of the amendments to the Constitution, which forbids any person to be deprived of property without due process of law, inasmuch as by the mere will of an executive officer or officers it deprives the inventors mentioned in paragraph B above of their property in a part of their said discoveries.

Second. The authority exercised by the Commissioner of Patents, with the approval of the Secretary of the Interior, in establishing or attempting to establish rule 41 is invalid, because without warrant of law. Among the many grounds upon which such absence
3 of legal warrant can be urged, the following few are set forth by way of example, namely:

A. The Revised Statutes distinguish clearly between (1) the lawful subject-matter of a patent, (2) the statutory proceedings for obtaining a patent, and (3) the conduct of the said statutory proceedings; the only authority given by any act of Congress is to regulate the *conduct* of the statutory proceedings, but rule 41 is directed toward ascertaining and prescribing what shall be the lawful subject-matter of a patent.

B. Congress has not delegated to the Commissioner of Patents, nor to any executive officer or officers, the making of such a rule as is rule 41.

C. In fact, under the Constitution, Congress could not make such a delegation of power, as the enactment of the said rule would be an exercise of the legislative power.

Third. The authority exercised by the Commissioner of Patents, with the approval of the Secretary of the Interior, in establishing, or attempting to establish, rule 41, is invalid, because the said rule is unreasonable. Among the many grounds of unreasonableness the following few are here set forth by way of example, namely:

A. The inventor *must* invent and *must* disclose matter which the said rule will not allow him to claim in the very patent wherein such disclosure *must* be made, and as a condition precedent to which the said matter *must* be invented.

B. The rule forbids the claiming in one patent of matters which repeated decisions of the Supreme Court U. S. have held to be the proper subjects of distinct claims in the same patent, which that tribunal has never recognized as proper subject-matter for
4 separate patents, and which seem by the pronouncements of the same tribunal to be forbidden to be claimed in separate patents.

C. The rule contemplates two patents identical in the subject-matter invented and disclosed and differing only in the claim.

Fourth. The authority exercised by the Commissioner of Patents, with the approval of the Secretary of the Interior, in establishing or

attempting to establish rule 41 is invalid, because said rule is inconsistent with law. Some of the many grounds of its inconsistency with law are hereinabove set forth and need not be repeated. In addition, the following are here set forth, likewise by way of example, namely:

A. Congress having legislated with respect to the subject-matter of a patent, any alteration, by enlargement or restriction or otherwise, of the statutory provisions is inconsistent therewith.

B. Congress having set forth certain fees and proceedings by which an exclusive right may be secured to one or more specified inventions or discoveries or inventions and discoveries, a rule demanding two or more sets of fees and two or more proceedings is inconsistent with the congressional enactments.

C. The rule forbids what Congress has authorized, namely, one patent for both a new process and the new apparatus by which such process is made of practical usefulness.

D. The rule enjoins what the law forbids, to wit, the establishment of mutually exclusive monopolies.

E. The rule enjoins what the law forbids, to wit, the limitation of the vested and inchoate rights under one patent by a patent
5 subsequent thereto, both in order of issue and in legal effect.

F. The rule contemplates what the law forbids, to wit, the limitation of the inchoate rights of the public under a patent by a second patent subsequent thereto, both in date of issue and in legal effect.

G. The rule contemplates the exercise (in the issue of a second patent) of authority previously exhausted (in the issue of patent earlier in order of issue).

H. The rule denies the right which the law gives to an applicant of formulating his own claim.

I. The rule denies the right which — law gives to an applicant of claiming in a patent whatsoever patentable subject-matter he *must* disclose therein.

K. The rule denies the right which the law gives for such discoveries and inventions as Bell's telephone, Merrill's production of hydrocarbon oils, Neilson's hot blast, and this appellant's incrustation-removing means, namely, the right to one patent "as discoverer for the useful art, process, or method of doing a thing he has found and as inventor for the means he has devised to make his discovery one of actual value."

L. The rule enjoins what the law forbids, to wit, the inclusion "in a subsequent patent" to an inventor of an "invention embraced or described in a prior patent granted to himself."

Fifth. The authority is invalid which the Commissioner exercises in refusing patents to applicants in general and a patent to the present applicant (appellant) in particular unless and until his process claims or else his claims to the new apparatus used in the performance of said process shall be canceled.

6 Said authority is invalid for the following reasons, severally and *collecting:*

(*a*.) It is invalid because unconstitutional.
(*b*.) It is without warrant of law.
(*c*.) It is unreasonable.
(*d*.) It is inconsistent with law.

As some of the many grounds upon which (*a*) unconstitutionality, (*b*) absence of legal warrant, (*c*) unreasonableness, (*d*) inconsistency with law, can and will be urged, those hereinbefore set forth in the paragraphs marked by capital letters under the first, second, third, and fourth reasons of appeal are to be taken as here set forth by way of example.

Sixth. The authority exercised in this case, of requiring applicants in general, and the present applicant in particular, to cancel a part of his claim (or any one or more of his claims) to patentable subject-matter, is invalid, especially when two patents issued—one on the part required to be canceled and the other on the remaining part—would bear to each other the following relationship severally or any two or more or all of them collectively—that is to say:

1. That of two mutually exclusive patents.

2. That of two patents with the same essential specification, neither more nor less, only the *claim* being divided between the two patents.

3. That of two patents for different reflexes or embodiment of the same conception.

4. That of two patents for the process and the apparatus respectively, which process and apparatus were both claimed in Bell's
7 first patent in suit in Dolbear *v.* American Bell Telephone Co., 126 U. S., 1; C. D. 1888, page 322; 43 O. G., 377.

5. That of two patents for the process and the apparatus respectively, which process and apparatus were both claimed in the one patent in suit in Merrill *v.* Yeomans, 94 U. S., 568; C. D. 1877, page 279; 11 O. G., 970.

6. That of two patents for respecting Neilson's apparatus and Neilson's method, referred to in O'Reilly *v.* Morse, 15 How., 62.

7. That of two patents for respecting the process and the apparatus of appellant's above-entitled application.

Seventh. The authority is invalid, which was and is exercised by the Commissioner of Patents in this case, of forbidding applicants in general, and this applicant in particular, to claim all and several the new and useful matters of invention required to be disclosed by him or by them respectively in order to the obtainment of any patent whatsoever, and of refusing the application unless and until a part of his or their claim shall be canceled. This authority is invalid for the following reasons, severally and collectively:

(*a*.) It is invalid because unconstitutional.
(*b*.) It is without warrant of law.
(*c*.) It is unreasonable.
(*d*.) It is inconsistent with law.

As some of the many grounds upon which (*a*) unconstitutionality, (*b*) absence of legal warrant, (*c*) unreasonableness, (*d*) inconsistency with law, can and will be urged, those hereinbefore set

forth in the paragraphs marked by capital letters under the first, second, third, and fourth reasons of appeal are to be
8 taken as here set forth by way of example.

Eighth. The authority exercised by the Commissioner of Patents in this case of refusing or holding up applications for patents in general, and the above-entitled application in particular, upon the mere ground that the application contains both process claims and apparatus claims, is invalid, because:

(*a.*) It is unconstitutional.

(*b.*) It is without warrant of law.

(*c.*) It is unreasonable.

(*d.*) It is inconsistent with law, and upon grounds hereinbefore sufficiently set forth, the same to be taken as here repeated.

Ninth. The authority exercised by the Commissioner of Patents in this case, of refusing the above-entitled application upon any ground apparent in the record and proceedings in this case, is invalid, because:

(*a.*) It is unconstitutional.

(*b.*) It is without warrant of law.

(*c.*) It is unreasonable.

(*d.*) It is inconsistent with law, and upon grounds hereinbefore sufficiently set forth, the same to be taken as here repeated.

Tenth. The authority exercised by the Commissioner of Patents in refusing to forward appellant's appeal of December 13, 1901, to the board of examiners-in-chief, or to direct that it be forwarded, is invalid, because:

(*a.*) It is without warrant of law.

(*b.*) It is inconsistent with the statute in such case made and provided.

9 Some of the grounds which can and will be urged in support of these reasons are as follows:

(A). One or more or all of the points set forth in the said appeal *in* the said board were proper to be considered and passed upon by the examiners-in-chief.

(B). It is and was the duty of the said board to determine their own jurisdiction in the first instance, and not the prerogative of the examiner or of the Commissioner of Patents in person.

Eleventh. The Commissioner of Patents erred in holding that applicant (appellant) was not and is not justly entitled under the law to the patent prayed for, because the above-entitled application includes claims to a process and claims to an apparatus, or upon any ground apparent in the record and proceedings in this case.

Twelfth. The Commissioner of Patents erred in holding that because the above-entitled "application includes claims to a process and claims to an apparatus," "therefore the examiner properly required division." If the law authorizes (as it does authorize) one patent including claims to a process and claims to an apparatus, and if it gives (as it does give) to appellant a right to such a patent, it was the duty of the examiner and Commissioner to speed the progress of the application. If, on the other hand, the present applicant

(appellant) had been found claiming (as he is not claiming) more or other than the law authorizes to be secured in the patent to be issued on the above-entitled application, it would have been the duty of the examiner to reject the applicant (or, as the statute puts it, the claim for a patent) on that ground. In any case, if he
10 would not allow the application, it was his duty on the coming in of an appeal to the examiners-in-chief to forward the same to them for their determination of the points involved in the appeal. In no case can the Commissioner of Patents compel an applicant to file a divisional or, in fact, any application whatsoever.

Thirteenth. The Commissioner of Patents erred in holding that a "requirement for division is not an action upon the merits of the application, but is a mere matter of form." So far is it from being a mere matter of form that to secure a patent without the claims to process or to apparatus might be held by the courts to be an absolute abandonment and waiver of those claims, notwithstanding the issue of another patent containing the omitted claims.

In any event, the action is one of the merits.

(*a.*) Because the law gives inventors the right, on payment of one set of fees and the conduct of one proceeding, to secure protection for whatever matters may be authorized by law to be secured in one patent.

(*b.*) Because a patent with both process claims and apparatus claims is manifestly a different grant, as well from one whose claims are solely to process as from one whose claims are solely to apparatus.

(*c.*) Because the courts have repeatedly held claims void by reason of their having been granted in two patents instead of in one.

(*d.*) Because the legal effect of two patents is not the same as that of one patent.

(*e.*) Upon the analogy of the inclusion of two or more inventions in one patent to the inclusion of two or more patents in one
11 bill in equity, an improper inclusion in such bill making it demurrable for multifariousness, and the decision on such demurrer being appealable, when it is against the inclusion, as a final decision on the merits of the bill.

(*f.*) Because submission to the so-called "requirement of division" involving an alteration in the specification in its very essence—that is to say, in the substance of the claim.

Fourteenth. The Commissioner of Patents erred in holding that "a party has no right of appeal to the examiners-in-chief from such a requirement" as the so-called "requirement of division." The statute gives such a party the same right of appeal which it gives to any applicant whose "claim to a patent" may be "rejected."

Fifteenth. The Commissioner of Patents erred in holding that the action in the above-entitled application "is not a refusal of a patent or patents upon the alleged invention or inventions," since obviously he did and does refuse applicant a patent covering as well the new process as the new apparatus.

Sixteenth. The Commissioner of Patents is in error as to the

action on the above-entitled application being in effect "a ruling that the application has not been made in proper form," an "objection to the way in which the matter is presented, and not to the matter itself;" for in point of fact the matter in issue is neither a patent for the process divorced from the apparatus nor a patent for the apparatus divorced from the process, but a patent for the process and apparatus as one patentable discovery and invention, and no suggestion has been made of any change in the form or manner of
12 presenting said matter which would render the present application more acceptable to the Commissioner of Patents. What he demands is that the applicant (appellant) accept a patent essentially different from that which he asks as his legal right.

Seventeenth. The Commissioner of Patents erred in rejecting above-entitled application for patent.

Eighteenth. The Commissioner of Patents erred in refusing the patent applied for.

That the Commissioner of Patents has furnished him a certified transcript of the record and proceedings relating to said application for patent, which transcript is filed herewith and is to be deemed and taken as a part hereof.

Wherefore your petitioner prays that his said appeal may be heard upon and for the reasons assigned therefor to the Commissioner, as aforesaid, and that said appeal may be determined and the decision of the Commissioner be revised and reversed, that justice may be done in the premises.

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

CHAS. J. HEDRICK,
Solicitor & of Counsel.

13 & 14

3735.

2-389.

UNITED STATES OF AMERICA,

[Vignette.]

DEPARTMENT OF THE INTERIOR, PATENT OFFICE.

To all persons to whom these presents shall come, Greeting:

This is to certify that the annexed is a true copy from the records of this office of the record for the court in the matter of the application of Herman Frasch, filed November 13, 1899—serial number, 736,843—for improvement in means for removing incrustation of calcium sulphate from brine-heating surfaces.

Cost of this copy is $20.25 and has been paid.

Seal Patent Office, United States of America.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this 31st day of March, in the year of our Lord one thousand nine hundred and two, and of the

Independence of the United States of America the one hundred and twenty-sixth.

F. I. ALLEN.
Commissioner of Patents.

* * * * * * *

Specification.

To all whom it may concern:

Be it known, that I, Herman Frasch, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga, and State of Ohio, have invented certain new and useful improvements in means for removing incrustation of calcium sulphate from brine-heating surfaces and I do hereby declare the following to be a full, clear, and exact description of the invention, [such as will enable others skilled in the art to which it appertains to make and use the same].*

16 This invention relates to the removal of the incrustations of calcium sulphate from the heating surfaces of the vessels in which brine or other liquid containing calcium sulphate is heated in order to evaporate the said brine for the recovery of salt therefrom or in order to accomplish some other purpose. This incrustation or scale is very troublesome to the salt-maker, as its presence interferes with the transmission of heat to the brine and its removal is hard. In the evaporation of brine for salt in closed pans (such as vacuum pans for example) it has been customary (in my experience) to draw off the brine twice a day and after filling the pans with water to boil the latter in order to dissolve the common salt in the incrustation and then to scrape the flue walls in order to remove the calcium sulphate. In open pans, it has been the practice to clean the surfaces of the heating pipes once a week by means of hammers. The removal of the incrustation in either of these ways stops the evaporation while it is going on, thus diminishing by so much the output of a given plant, besides being a direct source of expense. The removal by hammering tends moreover to shorten the life of the heating pipes; for even when made extra heavy for the purpose of withstanding the hammering, the repeated blows necessary to remove the coatings are apt in time to split the pipes, so that they leak and have to be replaced.

In addition to the evaporation of brine in pans (open or closed) provided with heating surfaces (usually steam pipes or brine tubes), it has been proposed to heat the brine in one vessel under such

C. J. H. Before execution.

or tension of vapor

pressure A as to prevent evaporation therein and to transfer the so-heated brine to another vessel

C. J. H. Before execution.

or tension of vapor

in which the pressure A is removed to a

17 greater or less extent, and evaporation permitted in consequence; but here too there is apt to be formed a trouble- coating of calcium sulphate; for this

[* Words and figures enclosed in brackets erased in copy.]

substance is most soluble in water at about 100° F. (according to authorities the temperature of maximum solubility in water is between 32° C. and 41° C. which correspond respectively with $89\frac{6}{10}$° F. and $105\frac{8}{10}$° F.) and is precipitated by the mere heating of brine containing the same. In fact any heating above the very moderate temperature of maximum solubility of calcium sulphate, whether such heating be with or without evaporation, is apt to result in the incrustation of the heating surfaces with a highly objectionable coating of calcium sulphate.

In accordance with the present inventions, the incrustation of calcium sulphate is removed from the heating surfaces by condensing steam in contact with so-encrusted surfaces; and as an additional improvement, the condensation is effected, and the heat liberated in such condensation is absorbed, by a body of brine on the opposite side of the heat-conducting walls. The heat liberated by the condensation, therefore, need not be wasted but can be utilized in the heating of the brine with or without vaporizing the same. It is found that the incrustation formed in a given time, can be removed by the condensing steam in an equal (if not in a less) time; the removal of the incrustation consequently need not diminish the output of a given plant; for the brine-heating operation can be carried on with practical continuity; although the brine which is undergoing the heating operation occupies the chambers on opposite sides of the heat-conducting walls alternately. The removal can, moreover, be effected without any direct expense and without injury to the apparatus.

18 To carry the invention into effect practically, the chambers on opposite sides of the heat-conducting walls are each provided with inlets for respectively the steam to be condensed and the brine to be heated (with or without evaporation) and with means for withdrawing the water of condensation and the product or products of the brine-heating operation (that is the heated brine if there be no evaporation or the water vapor and the heated brine if evaporation take place without bringing the brine to saturation so as to precipitate salt or the water vapor and the precipitated salt if evaporation of saturated brine be carried on). When, however, the heating of brine (with or without evaporation) in only one of the chambers may be desired, it suffices to provide the other chamber with an inlet and outlet for any cooling medium in addition to the steam-supply pipe and the outlet for the condensed water, which latter outlet may however, if desired, be the same opening which serves for the withdrawal of the cooling medium.

In the accompanying drawings—

Fig. 1 is a vertical section of an apparatus in accordance with the invention, for heating brine with evaporation in the brine-holding chamber;

Fig. 2 is a section of the same apparatus on line A A of Fig. 1 looking in the direction of the arrow; and

Fig. 3 is an elevation of an apparatus, in accordance with the in-

vention, for heating brine without evaporation in the brine-holding chamber.

In both forms of the new or improved brine-heating apparatus, there are two chambers which are separated from each other by the heat-conducting walls, which (latter) are most advantageously constituted by the walls of suitable pipes. As shown these pipes *a* extend between perforated tube sheets *b* after the manner common in tubular condensers, in the heating belts of vacuum pans, in tubular boilers and other like apparatus; and the chambers are formed by the spaces inside and outside of said pipes *a* respectively. The spaces inside said pipes communicate with one another through the end spaces *c* and *d*. As shown in Figs. 1 and 2, the chamber outside of the pipes is provided with a dome *e*; and a similar dome could be applied to the corresponding chamber of an apparatus for heating without evaporation. Each of the chambers is provided with (1) a valved pipe *f* leading from a source of steam supply, as a steam boiler, the exhaust of a steam-engine, a pump for receiving and compressing exhaust steam, or other suitable source of steam supply, (2) a valved outlet *g* for drawing off the water of condensation, (3) a valved conduit *h* leading from a source of supply of the brine to be heated and (4) means for withdrawing the one or more products of the heating operation. The pipes *f* are shown as formed of branches of a common pipe with a valve in each branch; and the valved outlets *g* for condensed water, as well as the valved conduits *h* for the brine supply are similarly shown; but any suitable arrangement of pipes, outlets or conduits can be used. As it is immaterial to the present invention what becomes of the water of condensation, it is not essential that there should be a pipe or a conduit of any kind for conveying it away; although it would ordinarily and perhaps always be desirable to use such a pipe or conduit.

The conduits for supplying the brine need not be pipes, unless it is desired to introduce the brine under pressure; in other cases troughs would answer. Each chamber has to be closed when it is utilized as the steam-condensing chamber; but it may be open or closed, as may be preferred, when it is utilized as the brine-holding chamber. To remove and to replace a suitable cover (as the top *j* of the heater of Fig. 3, for example) is one way whereby a chamber can be opened when holding brine and closed when holding steam.

In the apparatus of Figs. 1 and 2, (for heating with evaporation of saturated brine) the means for withdrawing the products of the heating operation consist, for each chamber, of a valved vapor outlet *k* and a valved salt outlet *l*. As shown the vapor outlets *k* extend from the small side domes *m* and are united to a common pipe *n*, for leading away the vapors to any desired point of utilization or discharge. The salt outlets are similarly united. If the evaporation is to take place *in vacuo*, the salt outlets have a long leg or other discharging device, such as is used with ordinary vacuum pans.

In the apparatus of Fig. 3 (for heating without evaporation) the product of the heating operation is simply heated brine and the means for withdrawing it consist of a valved conduit *p* for each of the chambers. As shown the arrangement of the pipes marked *h* and *p* respectively, is such that either [the]* pair could be used for introducing the brine to be heated and the other pair for withdrawing the heated brine; and where the heating is without evaporation either pair of conduits could be used either for supply or for discharge.

In operation, brine to be heated, with or without being evaporated as the case may be, is introduced by one of the conduits *h* into the corresponding chamber, (say for example the chamber composed of
the spaces inside of the pipes *a*) and the steam from an appro-
21 priate source is introduced by one of the pipes *f* into the other chamber (to wit, the space surrounding the pipes *a*). The heat of the steam is conducted to the brine through the walls of the pipes *a*, and the steam is at the same time condensed. If the evaporation of the brine is contemplated, the vapor is allowed to escape through the appropriate outlet *k*; and if the brine is, or is allowed to become, saturated, salt is precipitated and accumulates in the salt outlet belonging to the brine-holding chamber; but if the brine is to be heated without evaporation, the heated brine is withdrawn by the appropriate hot-brine conduit *p*; and in any case, the supply of brine is renewed continually with brine from the brine-supply conduit *h*. The salt (when formed) is removed from time to time, or at each reversal, at one of the outlets *l*.

As brine usually holds calcium sulphate in solution, a precipitate of this substance takes place under the action of the heat, or of the heat and -vaporation, and forms an incrustation on the heating surfaces of the brine-holding chamber (to wit, on the inside of the pipes *a* in the example above supposed). After any desired interval, with or without waiting for the coating sensibly to impair the conduction of the heat through the walls separating the chambers, the connections are reversed by opening and closing the proper valves, and the steam is introduced into the chamber which has just been emptied of brine and whose walls have become more or less encrusted as aforesaid (to wit, in the example supposed the steam is let into the inside of the pipes *a*) and the brine to be heated (with or without evaporation) is introduced into the other chamber (to wit, the space outside the pipes *a*) which before was
used as the steam space. As before, the steam imparts its
22 heat through the intermediate conducting walls (to wit, of pipes *a*) to the brine of lower temperature on the opposite side of said walls and is condensed. Where evaporation of said brine is to take place, the temperature of its boiling point under the conditions existing in the brine-holding chamber must be below the temperature of steam condensation under the conditions existing in the steam chamber. As the steam condenses in contact with the

[* Words and figures enclosed in brackets erased in copy.]

calcium sulphate incrustation and the water of condensation runs down the same, the calcium sulphate is gradually dissolved and removed, so that the clean metal surfaces are exposed to the steam. In the meanwhile, however, a crust of calcium sulphate has been gradually forming on the brine side (the outside of the pipes *a* in the example supposed) and continues so to form, until the operator considers it advisable to reverse again the steam and brine supplies. Thus the operation of imparting heat to the brine, with or without evaporating the latter, and with or without the precipitation of salt, may proceed continuously, with the steam and the brine alternately on opposite sides of the heating walls.

The water of condensation is withdrawn continuously or at intervals through the appropriate outlet *g*. A In order to empty the chambers (each in its turn) of brine preparatory to the introduction of steam therein, use may be made of the outlets *g*, or of any other suitable openings at the bottom of the respective chambers. Thus an apparatus having salt outlets could have its chambers emptied of brine through them; or if the heated brine be withdrawn from the bottom of the chambers, these can be emptied through the same outlets; or there may be a special brine draw-off for emptying either or each of the chambers.

Any uncondensed steam may escape by the [of]* same outlet *g*.

23 Where evaporation is to take place in a chamber, it is desirable to arrange for the production of a vigorous circulation; and similar dispositions are sometimes wanted where more elevation of temperature is to be effected. In ordinary vacuum pans, one usual way to accomplish this has been to employ a large pipe in the middle of the heating belt. Such a pipe is shown in Figs. 1 and 2 and furnishes a down-flow passage in the chamber formed by the spaces within the pipes; for the chamber surrounding these pipes a down-flow passage is formed by omitting some of the pipes as shown in Fig. 2. The large pipe could of course be placed at one side and the down-flow passage for the surrounding chamber could be formed through the centre; or both passages could be eccentric.

When the brine on the opposite side of the heat-conducting walls is in ebullition, the transfer of heat through the conducting walls takes place most rapidly and the condensation of steam is most rapid; and there is a certain fitness therefore, when evaporation is carried on in one chamber, in carrying it on also in the other chamber; but, if desired, evaporation can be carried on in one chamber and heating without evaporation in the other, and the apparatus can be adapted to such working. For example, if the apparatus of Fig. 3 be provided (as is the apparatus of Figs. 1 and 2) with a vapor outlet for the end space *c* and a salt outlet for the end space *d*, one of the hot-brine conduits (to wit the conduit for the chamber formed by the spaces inside the pipes) could be omitted. A similar apparatus would be formed if in the apparatus of Figs. 1 and 2 either of

[* Words and figures enclosed in brackets erased in copy.]

the chambers should be provided with a heated-brine outlet,
24 the vapor and salt outlets for this chamber being dispensed with and the inlets and outlets of the other chamber remaining as shown. Other arrangements will suggest themselves.

In any such case, the steam would be condensed in contact with the incrustation in one chamber by the transfer of its heat through the walls to the brine on the opposite side of said walls in order (mainly, and it may be simply) to evaporate the water from said brine; while in the other chamber it would be condensed in contact with incrustation on its side of said walls by the transfer of its heat through said walls to the brine on the opposite side in order to raise the sensible temperature of said brine. Should it require a longer time to remove the incrustation left by the evaporation that that formed by simple heating, the simple heating may be carried on for a longer time. This arrangement (to wit a brine-evaporating chamber on one side the heat-conducting walls and a brine chamber for heating without evaporation on the other) may be desirable for adapting most readily the ordinary vaccum pan, or steam-closed evaporating pan, for operation in accordance with the present invention by adding a steam inlet and a condensed-water outlet to the ordinary brine-holding chamber and a brine inlet and outlet to the ordinary steam space of the heating belt.

In order to condense the steam in contact with the surfaces incrusted with calcium sulphate, it is essential to have a heat-absorbing medium on the opposite side of the heat-conducting walls; and it is an advantage and special improvement to utilize the brine to be heated (with or without evaporation) as such medium by placing it alternately on the opposite sides of said walls; but if it
25 should be preferred to forego the special advantage of this mode, the heat-absorbing medium can be otherwise constituted and the heat absorbed can be utilized in any desired way. If plain water for example were supplied to the outside of heating pipes whose inside surfaces had been encrusted with calcium sulphate and were exposed to steam, the steam could be condensed in contact with the so-encrusted surfaces in imparting to the water the heat necessary to vaporize the same or to raise its temperature: in such case, the water being free from calcium sulphate, there would be no incrustation on the outside of the pipes; and when the steam should be again admitted to the outside of the pipes, to evaporate or to heat without evaporating the brine inside the same, there would be no incrustation to be removed; so that the incrustation-removing operation would be performed only in heating and evaporating A brine within the pipes. The hot water or the steam could be utilized as it is customary to utilize such water or steam.

26 I claim as my invention or discovery:—

1. The process of removing incrustations of calcium sulphate from heating surfaces, consisting in condensing steam in contact with said surfaces by carrying off the heat from the opposite side of the heat-conducting walls, substantially as described.

2. The process of removing incrustations of calcium sulphate from heating surfaces, consisting in condensing steam in contact with said surfaces by transferring its heat to brine of lower temperature on the opposite side of the heat-conducting walls and so carrying off the heat, the steam and brine being applied alternately to each side of said heat-conducting walls so that the heating of the brine and the removal of the incrustation from a previous heating proceed together, substantially as described.

3. The process of removing incrustations of calcium sulphate from heating surfaces, consisting in condensing steam in contact with said surfaces by transferring its heat to saturated boiling brine of lower temperature on the opposite side of the heat-conducting walls and so carrying off the heat, the steam and brine being applied alternately to each side of said heat-conducting walls so that the evaporation of the brine with precipitation of salt and the removal of the incrustation from a previous heating proceed together, substantially as described.

4. An apparatus divided into chambers by heat-conducting walls and provided as to one chamber with a steam-supply pipe, a brine-supply conduit, and means for withdrawing the products of the steam-condensing and brine-heating operations, and as to other chamber with a steam-supply pipe, means for supplying a cooling medium, and means for withdrawing the products of the steam-condensing and the cooling-medium heating operations, substantially as described.

27

5. An apparatus divided into chambers by heat-conducting walls and having each chamber provided with a steam-supply pipe, a brine-supply conduit, and means for withdrawing the products of the steam-condensing and brine-heating operations, substantially as described.

6. An apparatus divided into chambers by heat-conducting walls and having each chamber provided with a steam-supply pipe, a brine-supply conduit, and means for withdrawing water from the steam-condensing operations and water vapor and salt from the brine-heating operations, substantially as described.

28 & 29

In testimony whereof I affix my signature, in presence of two witnesses.

HERMAN FRASCH.

F. W. LOTHMAN.
J. C. UPDEGROVE.

* * * * * * *

30 C. C. K.

WASHINGTON, D. C., *December* 16, 1899.
Mailed " " "

No. 736,843. Filed November 13, 1899. "Means for removing incrustation of calcium sulphate from brine-heating surfaces."

Herman Frasch, care Chas. J. Hedrick, 606 F St. N. W., Washington, D. C.:

Upon perusal of the specification and claims in this case it is seen that two different subjects of invention are presented—process and apparatus. Under rule 41 their joinder in one application is improper, and division is therefore required at the outset (*Ex parte* Rappleye, 85 O. G., 2096).

Claims 1, 2, and 3 are drawn to process; claims 4, 5, and 6 to apparatus. Division on this line must be made before action upon the merits can be given. It is noted that the specification appears unnecessarily prolix. The comparatively simple invention could apparently be presented in less than ten pages.

LITTLEWOOD, *Examiner.*

McE.

31 Room 258.

Herman Frasch. Means for removing incrustation, etc. Filed November 13, 1899. No. 736,843.

WASHINGTON, D. C., *December* 13, 1900.

Hon. Commissioner of Patents.

SIR: When the poet Horace labored to be brief he became obscure.

Applicant desires to be as brief as possible without introducing obscurity. The examiner gives no particulars of improvement in this regard, and it is understood that the suggestion of prolixity is not made a reason for refusing the application.

The sole reason given for this is understood to be the mere presence in the application of *claims* to process and apparatus respectively, the *description* of both being proper and, indeed, necessary.

It is submitted that the Commissioner has no jurisdiction to refuse this application, or, in fact, any application, for any such reason. The reasons for refusing an application are set forth in the statute, and the Commissioner has no jurisdiction to increase or diminish therefrom under the guide of an office rule or in any other way.

The attempt to enforce the presentation in separate applications of claims which the statute authorizes to be made in one is an interference with applicant's legal rights. Not only would it involve applicant in illegal fees and expenses, but it also denies him the protection contemplated by law; for—

"In *Underwood v. Gerber* (C. D. 1893, 340; 63 O. G., 1063; 149 U. S., 224) it was held that where a patentee obtained two patents

on the same day, upon applications filed on the same day, they could not be treated as one patent with two claims." * * *
(Quoted from Miller *vs.* Eagle, C. D. 1894, p. 156.)

32 So long, then, as the fees and other expenses required for two patents and the protection afforded by them are not the same as in the case of one patent with two claims, it is clear that something more than the mere conduct of proceedings is involved in the office rule, and this becomes an infringement on the legal rights of applicant. Most obviously is this so where the matter to be claimed in the subsequent patent is required by statute to be described in the earlier, for "the patentee could not include in a subsequent patent any invention embraced or described in a prior one granted to himself" * * * (James *v.* Campbell, C. D. 1882, p. 85).

The intention of the law is that an applicant shall point out and claim everything described in his specification which, being new and useful, he desires to protect.

That this is the intention of the law is evident from the following considerations:

1. No limitation as to the number or kinds of claim is set forth in the statute.

2. An underlying principle of the patent law is that the protection given to the inventor ought to be coterminous with the new disclosure which he makes to the public, the one being the consideration for the other (Grant *v.* Raymond, 1 Whitman's Patent Cases; 6 Peters, 218).

3. The Supreme Court U. S. have found in a failure to claim matter which is described a presumption of lack of novelty in such matter (Brown *v.* Guild, 6 O. G., 401, column 2; Miller *v.* Bridgeport Brass Co., C. D. 1882, p. 51; Mahn *v.* Harwood, C. D. 1885, p. 149) or a dedication of the same to the public.

4. Under the ruling of the Supreme Court U. S. in James *v.* Campbell, above, if a patentee should not claim all the in-
33 vention disclosed in his patent he cannot get a valid *subsequent* patent for what has been so described without claim.

It is true that an applicant may describe, and, indeed, often must describe, what is public property or is the subject of a prior patent to himself or another, and that such matter cannot lawfully be claimed; but this is simply because said matter is no longer new and the subject of appropriation. It is not because the law intends an inventor in a given specification to point out and claim less than the whole of that which being lawfully described he believes to be his own invention or discovery and in consequence desires to protect by patent.

Moreover, as pointed out in James *v.* Campbell, Mahn *v.* Harwood, and Miller *v.* Eagle, all above, an applicant *in some cases* may reserve a matter described, but not claimed, in a given specification, and may have pending a simultaneous application therefor; but the necessity for an express reservation or a simultaneous application, or both, evidences the expectation of the statute to find in each specifi-

cation a claim to everything therein described for which the inventor desires protection by the patent to be issued on that specification. Any other condition is exceptional, and is so recognized by the decisions.

Moreover, the liberty of reserving to another patent matter described in a given specification and not therein claimed is a limited one (Miller *v.* Eagle, C. D. 1894, p. 157), and what appears in James *v.* Campbell and Mahn *v.* Harwood (both above) ought to be taken subject to the limitation in the former decision, to wit, that "a patentee could not include in a subsequent patent any invention embraced or described in a prior one granted to himself."

34 The decisions in Suffolk Co. *v.* Hayden, 3 Wall., 315, and Washburn and Moen *v.* Beat 'Em All Barbed Fence Co., C. D. 1892, 299, are not contrary to this pronouncement in James *v.* Campbell, because in those decisions the later issued patents was considered "in legal effect * * * a prior patent" (C. D. 1892, p. 304), and did not describe the matter claimed in the earlier issued but in legal effect subsequent patent. So also the circuit court & C. C. A. cases of Thomson and Houston *vs.* Elmira and Horseheads R'y Co., C. D. 1896, p. 122, and same *v.* Ohio Brass Co., C. D. 1897, p. 579.

Still further, even the limited liberty which exists for reserving matter described but not claimed in a patent is a *privilege* belonging to the *inventor*, and not to the Commissioner of Patents. If an inventor attempts to exceed the legal limits of his privilege the Commissioner may resist the attempt, but he has no jurisdiction to compel an inventor to reserve a part of his described invention to a subsequent patent, nor to file a simultaneous or any other application, nor to dedicate a part of his invention to the public, nor to put the inventor in the dilemma of either dedicating a part of his invention to the public or else filing a simultaneous application therefor.

If, however, *neither* of two inventions can be described in the manner required by the statute without describing or substantially suggesting both of said inventions, the law denies to the inventor *all* liberty of obtaining separate patents for said inventions respectively, unless essential modification or qualification can be made in the pronouncement of the Supreme Court in Miller *v.* Eagle, that "where a patentee obtained two patents on the same day, upon applications filed on the same day, they could not be treated as one patent with two claims" (C. D. 1894, p. 156), or in that in

35 James *v.* Campbell, to wit, that "the patentee could not include in a subsequent patent any invention * * * described in a prior one granted to himself" (C. D. 1882, p. 85); for the Miller *v.* Eagle pronouncement would require the two patents to be regarded as prior and subsequent respectively, and since they each contain, and must, under the statute, contain, the same essential description, the one regarded as subsequent would be invalid under James *v.* Campbell, as being for an invention described in a prior patent to the same inventor.

Certainly the Commissioner has no jurisdiction to compel an in-

ventor to dedicate to the public a part of his invention unless he shall be able to secure an essential modification or qualication of the law as pronounced by the Supreme Court U. S.

This is precisely what will happen if separate patents are to be granted in many cases of process and apparatus.

The inventor of a process carried out by apparatus "must describe * * * some apparatus by which the process can be applied" (Tilghman *v.* Proctor, C. D. 1881, p. 177), and the inventor of an apparatus to be used in carrying out a process must describe "the process of * * * using it" (sec. 4888, R. S.).

Consequently in many cases of process and apparatus both must be described as the foundation for any claim at all, and it is not possible to have two patents without including in the subsequent of said two patents an invention described in the prior one granted to the same inventor.

In this connection it should be observed that the invention claimed in the subsequent patent in suit in James *v.* Campbell was a process, and was "embraced or described" in the prior patent only because the implement claimed in this prior patent was used to carry out said process.

36 The Supreme Court U. S. have expressly affirmed an applicant's legal right to one patent with distinct claims therein to process and apparatus respectively, for they said in Merrill *vs.* Yeomans: "If all which is described as new in these specifications is really so, the inventor has a right to a patent for three inventions:

1. For * * * distilling apparatus.
2. For a new process or mode of distilling * * *.
3. For the product of this new process of distillation * * *." (C. D. 1877, page 281.)

And in the telephone cases, "The law has given the discoverer and inventor the right to a patent—as discoverer for the useful art, process, or method of doing a thing he has found, and as inventor for the means he has devised to make his discovery one of actual value." (C. D. 1888, p. 325.)

It is plain that the court meant one patent with distinct claims, because:

1. They say a patent, not patents, nor in general patent protection.
2. In each case the patent in suit was one patent, with distinct claims to process and apparatus respectively.
3. Two patents are not the same thing in legal effect as one patent with two claims; and while this difference was most clearly announced in the latter cases of Underwood *v.* Gerber and Miller *vs.* Eagle (both above), it must legally be presumed to have been in the mind of the court.
4. In the Telephone cases it was expressly recognized that a description of the "means * * * is necessary to show that the art can be used" (C. D. 1888, p. 324), and it cannot be supposed that a subsequent patent for what was thus necessarily described in a prior patent was contemplated, in view of their own pronouncement

in James *v.* Campbell, above, that such subsequent patent must be invalid.

37 In conclusion, then, it is submitted:

1. That an application has the legal right to *claim* in a patent whatever new and useful invention of his own he has the legal right to *describe* in the same patent.

2. That at the least, as Commissioner Paine said in *Ex parte* McClintock, in reference to general and more limited inventions, an inventor in the same patent "may claim what he must describe" (C. D., 1880, p. 50).

3. That where he must describe two things as a statutory condition for claiming either, he not only may claim both, but his only safe course, in view of Miller *v.* Eagle and James *v.* Campbell (both above), is to claim both in the same patent, this being the only possible way to secure valid claims to both unless the pronouncements in these decisions shall be essentially modified or qualified.

4. That the Supreme Court U. S. in Merrill *v.* Yeomans and the Telephone cases (both above) have expressly affirmed an inventor's legal right to claim both process and apparatus in the same patent, so that applicant's right in this regard should be beyond controversy.

5. That no allegation has been made that the statutory description of applicant's process could be made without including his apparatus in the description, and conversely; and that no reason has been or can be given for refusing the present application which would not equally apply to any and every application containing claims to both process and apparatus, no matter how closely related said process and apparatus might be.

38 The Commissioner, then, being without jurisdiction to refuse this application or any application, for the reason given in refusal thereof, it is trusted that no further objection will be made to this application, at least because of such reason.

An allowance is requested.

Respectfully,

HERMAN FRASH,
By CHAS. J. HEDRICK,
His Attorney.

39 C. C. K.

DECEMBER 31, 1900.

Mailed " " "

No. 736,843. Filed November 13, 1899. "Means for removing incrustation of calcium sulphate from brine-heating surfaces."

Herman Frasch, care Chas. J. Hedrick, 606 F St. N. W., Washington, D. C.:

The argument filed in this case is simply a denial of the jurisdiction of the Commissioner to make a rule such as rule 41, and terms the requirement here made "an interference with applicant's legal rights."

The rule has been made and approved by the honorable Secre-

tary, and in *Ex parte* Boucher, 88 O. G., 545, applicant will find the reasons which led to the revision of rule 41. That decision forms full answer to the points raised by the argument, and it is suggested that it has been decided that the rules of this office "are just as author-ative as the laws of Congress." United States *ex rel.* Koechlin & Witt *vs.* Commissioner.

The suggestion of prolixity was not given as a reason for
40 refusal of a patent. In fact, no "refusal" appears of record, and in assuming that a patent has been refused the attorney misstates the position of the office.

It is noted that applicant's structure is not found, but that his claims as drawn are broad enough to include many old evaporating structures. See, for instance, Van Ruymbeke, December 3, 1895 (sugar and salt, vacuum pans).

The requirement for division is repeated and insisted on.

LITTLEWOOD, *Examiner.*

[Endorsed:] Serial No., 736,843; paper No. 3.

41 Room 258.

Herman Frasch. Removing incrustation, &c. Filed November 13, 1899. No. 736,843.

606 F ST. N. W.,
WASHINGTON, D. C., *October* 5, 1901.

Hon. Commissioner of Patents.

SIR: The following is in answer to the official letter of December 31 last:

In the Koechlin and Witt case, C. D. 1882, page 442, 22 O. G., 1365, the court said that those Patent Office rules being "reasonable," which are "enacted for its conduct * * * if they are within the powers of the office, are just as authoritative as the laws of Congress itself, if within the limitations of its powers."

Applicant contends that any rule which denies the grant in any and all cases of one patent with both process and apparatus claims is unreasonable, and that it is outside the Commissioner's powers because it attempts to control the substance of applications and not merely the conduct of proceedings in the Patent Office, and also because its provisions would be inconsistent with the law.

On November 13, 1899, applicant filed his present application in all respects in compliance with sections 4888, 4889, 4892, and 4934, R. S.

Soon after an official letter of that date was received, saying that the "papers are duly filed" and that the "case will be taken up for examination in about six weeks."

42 Next followed the official letter of December 16, 1899. I supposed that it was the result of the examination required by section 4893, R. S., and that it was intended to give applicant the information which section 4903, R. S., requires to be given "whenever, on examination, any claim for a patent is rejected."

If any misconception is involved in these suppositions, will the examiner himself please state the position of the office.

The reference cited (patent 550,699 to Van Ruymbeke, 1895) speaks (lines 79–87 of page 1) of certain pipes, u', u^2, u^3, and w', w^2, w^3, "which may be opened when it is desired to flush or clean the apparatus with steam or water," and of certain other pipes, s', s^2, s^3, "for admitting steam or water for this purpose, said pipes leading into the various pans beneath the heating drum thereof."

There is no suggestion, however, by Van Ruymbeke that when steam is admitted its condensation is to be so effected within the pans as that the incrustating material should be dissolved in the resulting water of condensation, nor is there any suggestion of utilizing the steam admitted by pipes s', s^2, s^3, to heat or to evaporate brine.

There is no suggestion by Van Ruymbeke of any admission of brine or other cooling medium to any heating drum V. If the objection founded upon the reference given is to be insisted on, the examiner is requested to point out the particular places in the patent cited which may be held, respectively, to meet the several terms of applicant's claims.

A reconsideration is requested.

Respectfully,

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

43 & 44

OCT. 21, 1901.
Mailed " " "

No. 736,843, filed Nov. 13, 1899, for means for removing incrustation of calcium sulphate from brine-heating surfaces.

Herman Frasch, c/o Chas. J. Hedrick, 606 F St. N. W., city:

The argument filed Oct. 5 has been entered. It is not within the power of the examiner to waive the requirements of the rules as sufficiently set forth in previous office letter.

The requirement of division made in office letter of Dec. 16, 1899, and repeated in that of Dec. 31, 1900, is again repeated.

This action is final on this point.

LITTLEWOOD, *Examiner.*

McE.

* * * * * * *

45

DEC. 16, 1901.
Mailed " " "

736,843. Filed Nov. 13, 1899. Means for removing incrustations of calcium sulphate from brine-heating surfaces.

Herman Frasch, care of Chas. J. Hedrick, 606 F St., Washington, D. C.:

The applicant's action of Dec. 13, 1901, is noted.

An appeal in this case is premature, for the reason that there has been no such final rejection as is required by rule 133, nor, indeed,

has there been any rejection. Applicant's case stands under requirement for division under rule 41.

It is noted that neither the examiner nor the board of examiners-in-chief has jurisdiction over the validity of rules, over the Commissioner's power to make rules, or over the power of Congress to make laws to control the Commissioner. Attention is invited to *Ex parte* Frasch, 91 O. G., 459.

The requirement for division was made final in office action of Oct. 21, 1901.

LITTLEWOOD, *Examiner.*

46 Room 258.

Herman Frasch. Removing incrustation, etc. Filed November 13, 1899. No. 736,843.

WASHINGTON, D. C., *December* 18, 1901.

Hon. Commissioner of Patents.

SIR: The following is in answer to the official letter of 16th instant:

To decide whether a given invention is subject-matter for one patent or for two is within the jurisdiction of the examiners-in-chief, according to the rulings in *Ex parte* McDonald, C. D. 1893, p. 99, and in *Ex parte* Hulbert, C. D. 1894, page 1; *Ex parte* Burgess, C. D. 1897, page 64, which rulings are understood not to have been altered.

In Commissioner of Patents *v.* Whitely, 4 Wall., 522, the Supreme Court U. S. decided that a question not involving the novelty, useful-, or originality of the invention was appealable under the statutes then in force.

The matters of merits which are appealable to the board of examiners-in-chief are those affecting the merits of the *patent* to be granted on the *application*, and not merely the merits of the *invention.*

In Neill *v.* Commissioner of Patents, C. D. 1898, page 332, the Court of Appeals D. C. indicated the even rulings of practice would be considered by that court when "some substantial right of a party has been denied." This is also indicated in the later case of Marshutz *v.* Commissioner of Patents, C. D. 1898, page 578.

As understood, the examiner's decision, if sustained, cuts off applicant from obtaining not only such a patent as he asks, but such patent protection as he contends is his legal right. The re-
47 fusal to call the action a rejection does not make it more nor less a final denial of the right claimed. Moreover, it disposes of the application unless and until it shall be amended in matter of substance.

It is conceived that error exists in calling the decision a requirement for division. No division, properly speaking, has or could be required, nor, in fact, is any division contemplated by that portion of rule 41 which is understood to be relied upon.

No division between process and apparatus in certain cases is possible for the reason stated by the Supreme Court U. S. in Leroy *v.* Tatham, 22 How., 132 (underscoring mine):

"And in regard to a practical application of the new conception, it is as necessary as the conception itself, and *they must unite in the patent.*"

I have carefully read the opinion in *Ex parte* Hans A. Frasch, 91 O. G., 459. Said Frasch, it is hardly necessary to say, is not the present applicant. The latter was in no manner a party to the said case.

The said opinion quotes as if from Powder Co. *v.* Powder Works, (98 U. S., 126; 15 O. G., 289) the remark (made in fact in James *v.* Campbell, below) that "a process and a machine are not necessarily one and the same invention. They are generally distinct and different."

This remark implies that a process and a machine may *sometimes* be one and the same invention; and, irrespective of this, it contains no suggestion that after a patent on a process carried into effect with the aid of a machine a later patent on the very identical machine would be valid.

The said opinion quotes the remark in James *v.* Campbell (104 U. S., 356; 21 O. G., 337) that "a patent for a process and a patent for an implement or a machine are very different things."

48 Undoubtedly they are; and they, separately and conjointly, are "different things" from the patent to which "the law has given * * * the right" to applicant—that is to say, a patent for both—"as discoverer for the useful art, process, or method of doing a thing he has found, and as inventor for the means he has devised to make his discovery one of actual value." (See opinion of the Supreme Court U. S. in the Telephone cases, C. D. 1889, p. 325.)

But it does not follow that because a patent for a process would be a different thing from a patent for a machine, that therefore one will not defeat the other when granted to the same inventor.

In James *v.* Campbell, itself a later process patent, — was held void in view of a prior implement patent to the same inventor, the court saying:

"It is hardly necessary to remark that the patentee could not include in a subsequent patent any invention embraced or described in a prior patent granted to himself any more than he could an invention embraced or described in a prior patent granted to a third person."

The Commissioner (Mr. Duell) in the Hans A. Frasch case quotes from former Commissioner Mitchell to the effect that it had been decided over and over again by the Supreme Court of the United States that process and apparatus constitute distinct inventions; but the best evidence of what that court decided *in* the decisions themselves.

No case in the Supreme Court U. S. has been cited in which a later patent has been sustained for the identical apparatus disclosed in a prior process patent to the same inventor, or conversely.

In Tilghman *v.* Proctor, C. D. 1881, page 163, the Supreme Court U. S. are careful to limit the right to a later patent to an *improved* apparatus. They say, referring to Neilson's invention of the hot blast:

"Another person might invent a better apparatus for applying the process than that pointed out by Neilson, and might
49 obtain a patent for such improved apparatus, but he could not use the process without a license from Neilson. His improved apparatus would in this respect stand in a relation to the process analogous to that which an improvement on a patented machine bears to the machine itself." (C. D. 1881, page 175.)

They do not suggest that a later patent to another or to Neilson himself could issue for the very identical apparatus described in Neilson's patent.

The Commissioner (Mr. Duell) quotes from Thomson-Houston Co. *v.* Elmira Co. (71 Fed. Rep., 396) the remark that—

"The invention of a new art, machine, or manufacture, and the invention of an improvement upon either, are substantially distinct and separate; and because this is so, the order of priority between patents to the same inventor for the different inventions, in the absence of abandonment or disclaimer, is immaterial."

Undoubtedly the same person may have one patent for a primary invention and another for an improvement thereon; and it is also true that the patent on the primary invention may issue first or it may in some cases issue second; but if it issue second, then it is supported on the ground that it is *prior in legal effect*, notwithstanding its later issue. As the Supreme Court U. S. said in the Barbed Fence case (Washburn & Moen *v.* Beat 'Em All Barbed Wire Co., C. D. 1892, page 299):

"In legal effect this was a prior patent, since the date of the application and not the date of the patent controls in determining the legal effect to be given two patents issued at different dates to the same inventor and the order in which they are to be considered." (C. D. 1892, near top of page 304).

When the later issued patent for the broad invention cannot be considered the prior in legal effect, it seems to be invalid as in James *v.* Campbell, above, and in Miller *v.* Eagle, C. D. 1894, page 147.

50 The later patent in James *v.* Campbell was a reissue for—

1st. A process.

2d. The implement broadly.

3d. The implement narrowly.

The prior patent was for another form of what would be the same implement considered broadly. The earlier patent (if later in legal effect) could apparently have been considered an improvement on the primary implement or general combination of the later issued patent (the original of the reissue in suit), but such later issued patent was applied for after the issue of the narrow patent, and probably for this reason the narrow, not the broadened, patent was regarded as the earlier "in legal effect," as well as in date of issue.

In Miller *v.* Eagle the later issued patent was the broad patent, and was granted on the earlier (original) application, but the Supreme Court U. S. refused to consider it prior in legal effect because apparently "the power to create a monopoly is exhausted by the first patent." (C. D. 1894, page 156.)

In this case (Miller *v.* Eagle) the Supreme Court U. S. plainly intimate that of two patents, one for a machine and another for a product, the earlier issued might defeat the later issued patent, for they say:

"A single invention may include both the machine and the manufacture it creates, and, in such cases, if the inventions are really separable, the inventor may be entitled to a monopoly of each." (C. D. 1892, page 157.)

The use of the word *if* plainly gives warning that a "machine and the manufacture it creates" are not *necessarily separable*, as rule 41 makes them to be.

In the Hans A. Frasch case the Commissioner says:

51 "This question whether claims for a process and claims for an apparatus should be permitted in the same application is one of office policy."

But from this pronouncement the applicant must with all deference dissent. He submits that the question is one covered by the Constitution and laws passed in pursuance thereof, not one within executive discretion.

In Miller *v.* Eagle the Supreme Court U. S. said:

"It is insisted on the part of the appellee that whether the invention shall be protected in part of its *features* by one patent, and as to the rest by another, or shall be completely protected by a single patent, is a matter which concerns solely the Patent Office and the inventor.

Under the rule announced in the foregoing authorities this proposition cannot be sustained."

With respect to the disclaimer of jurisdiction, attention is called to the fact that a refusal to answer and forward the appeal amounts to a denial not of the examiner's jurisdiction, but only of the jurisdiction of the examiners-in-chief.

It is requested that the appeal to the examiners-in-chief may be answered and forwarded to them for their decision.

Respectfully,

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

52 & 53 C. C. K.

DECEMBER 19, 1901.
Mailed " " "

No. 736,843. Filed November 13, 1899. Means for removing incrustation of calcium sulphate from brine-heating surfaces.

Herman Frasch, care Chas. J. Hedrick, 606 F St. N. W., Washington, D. C.:

The letter filed December 18, 1901, has been considered.

The examiner has no power to send forward for consideration by the examiners-in-chief a case which has not received *rejection* upon one or more of the grounds provided in rules 133 and 134. The refusal to send forward is repeated and made final. From this action petition may be taken (rule 145).

The case stands, under requirement of division, between process and apparatus (rule 41), made December 16, 1899; repeated December 31, 1900, and made final October 21, 1901. This final action is also matter for petition.

LITTLEWOOD, *Examiner.*

McE.

* * * * * * *

54 Room 258.

Herman Frasch. Means for removing incrustation of calcium sulphate from brine-heating surfaces. Filed November 13, 1899. No. 736,843.

WASHINGTON, D. C., *December* 19, 1901.

Hon. Commissioner of Patents.

SIR: Your petitioner represents as follows:

First. On November 13, 1899, your petitioner filed his above-entitled application for patent in all respects in due form of law and paid the fee required.

Second. Your petitioner was informed by office letter of said date that his papers were duly filed, and that his said application would be taken up for examination in its order, which it was indicated would be in about six weeks.

Third. By office letter of December 16, 1899, he was informed (*a*) that under rule 41 the joinder of process and apparatus in one application was improper, claims 1, 2, and 3 being drawn to process, and claims 4, 5, and 6 to apparatus; (*b*) that division on this line must be made before action on the merits could be given, and (*c*) that your petitioner's comparatively simple invention could apparently be presented in less than ten pages.

Fourth. On December 13, 1900, your petitioner answered, pointing out (*a*) that he desired to be as brief as possible without introducing obscurity, and that no particulars of improvement in this regard had been given; (*b*) that the sole reason for refusing
55 the application was understood to be the mere presence in the application of *claims* to process and apparatus respectively,

the *description* of both being proper and, indeed, necessary, and (*c*) that the Commissioner of Patents had no jurisdiction to refuse this application or any application for any such reason. By the same communication your petitioner (*d*) persisted in his claim for a patent without altering his specifications (sec. 4903, R. S.), and asked an allowance.

Fifth. By office letter of December 31, 1900, your petitioner was informed (*a*) that the rule was made with the approval of the Secretary of the Interior, is based on reasons stated in *Ex parte* Boucher, 88 O. G., 545, and is "as authoritative as the laws of Congress," citing U. S. *ex rel.* Koechlin & Witt *v.* Commissioner, C. D. 1882, page 442; (*b*) that no "refusal" of a patent "appears of record;" (*c*) that applicant's structure was not found, but that the claims as drawn were broad enough to include many old evaporating structures, one of them being cited by reference to a patent mentioned, and (*d*) that division was insisted on.

Sixth. On October 5, 1901, your petitioner responded, showing (*a*) that by the very decision cited (the Koechlin & Witt case) a rule to be authoritative must be (1) reasonable, (2) for the conduct of proceedings, and (3) within the power of the office, none of which conditions was satisfied by rule 41; (*b*) that applicant supposed the official letter of December 16, 1899, was the result of the examination required by sec. 4893, R. S., and was intended to give applicant the information which sec. 4903, R. S., requires to be given "whenever, on examination, any claim for a patent is rejected," and (*c*) that certain limitations of your petitioner's "specifications" were not found in the patent referred to. In the same communi-
56 cation *be* (*d*) asked for further explanation in case the reference should be insisted on. He further (*e*) persisted in his claim for a patent "without altering his specifications" (sec. 4903, R. S.) and asked a reconsideration.

Seventh. By office letter of October 21, 1901, your petitioner was informed (*a*) that it was not in the power of the examiner to waive the requirements of the rules; (*b*) that the requirement of division made December 16, 1899, and repeated December 31, 1900, was again repeated, and (*c*) that the action was final on this point.

Eighth. On December 13, 1901, your petitioner appealed in due form from the decision of the primary examiner to the board of examiners-in-chief and paid the fee therefor as provided by secs. 4909 and 4934, R. S.

Ninth. By office letter of December 16, 1901, your petitioner was informed (*a*) that an appeal was premature, because there had been no "rejection;" (*b*) that the application stood under requirement of division under rule 41, and (*c*) that neither the examiner nor the board of examiners-in-chief had jurisdiction over the validity of rules nor over the powers of the Commissioner or of Congress. Your petitioner's attention was also invited (*d*) to the decision in *Ex parte* Hans A. Frasch, 91 O. G., 459.

Tenth. On December 18, 1901, your petitioner responded, showing (*a*) that the decision appealed from operated finally to deprive

your petitioner of the patent, and also of the protection to which the law gives him the right; (*b*) that no division, properly speaking, had been required by the examiner or was contemplated by that portion of rule 41 which the examiner relied upon or
57 was, indeed, possible, since the new conception and the means to make it practically useful *must unite in the patent;* (*c*) that the question of whether a given specification set forth subject-matter for one only or for two patents, which was one of the points of the appeal, was within the board's jurisdiction by repeated rulings of different Commissioners, which rulings *had not been altered*, and (*d*) that the refusal to forward the appeal was a denial, not of the examiner's, but of the board's, jurisdiction. Your petitioner (*e*) reviewed the decision in the Hans A. Frasch case and (*f*) requested that the appeal to the examiners-in-chief might be answered and forwarded.

Eleventh. By office letter of December 19, 1901, your petitioner was informed (*a*) that the examiner had no power to forward an appeal unless the case had been *rejected* upon grounds of rules 133 and 134; (*b*) that the refusal to forward the appeal was repeated and made final, and (*c*) that a petition might be taken from this action as also (*d*) from the requirement of division.

Wherefore your petitioner prays as follows:

First. That you will make such order or action as that your petitioner's appeal to the examiners-in-chief may be heard by them.

Second. In the event of a refusal of your petitioner's first prayer, that you will yourself consider the various matters, all and several, raised by said appeal, which is hereby made a part of this petition the same as if here entered in full.

Third. That in any event you will make such order or action as that your petitioner's legal rights may be protected.

Fourth. That you will advise the examiner that his objec-
58 & 59 tion be not insisted upon, whether properly or improperly made by him heretofore, and will direct him to proceed with the application.

Fifth. That you will administer such other or further relief as may be proper in the premises.

A hearing of this petition and appeal is requested at your earliest convenience.

Respectfully,

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

* * * * * * *

60 United States Patent Office.

In re application of Herman Frasch. Filed November 13, 1899. Serial No., 736,843. Means for removing incrustation of calcium sulphate from brine-heating surfaces.

U. S. PATENT OFFICE, *Dec.* 28, 1901.
Mailed —— —, ——.

Before the Commissioner of Patents on Petition.

Examiner's Statement.

To the honorable Commissioner of Patents.

SIR: This petition is taken against the repeated requirements for division between claims for process and claims for apparatus. Applicant was told "that two different subjects of invention are presented—process and apparatus. Under rule 41 their joinder in one application is improper, and division is therefore required at the outset (*Ex parte* Rappleye, 85 O. G., 2096)."

Ex parte Rappleye was then in force, and is to the effect that "when the independence of the inventions is clear, division should be made before any action upon the merits."

In the same letter he was further told that "claims 1, 2, and 3 are drawn to process; claims 4, 5, and 6 to apparatus. Division on this line must be made before action on the merits can be given * * *."

Applicant filed an argument against the requirement made, and demanded allowance of the claims as they stood.

He was then told that the arguments which he had filed was simply a denial of the jurisdiction of the Commissioner to
61 make a rule such as rule 41. He terms the requirement made by the examiner "an interference with applicant's legal rights." He was informed that the rule had been made and approved by the honorable Secretary, and that in *Ex parte* Boucher, 86 O. G., 545, applicant would find the reasons which led to the revision of rule 41. The decision forms full answer to the points raised by the argument, and it was suggested that it had been decided that the rules of the office "are just as authoritative as the laws of Congress" (U. S. *ex rel.* Koechlin & Witt *vs.* Commissioner, 22 O. G., 1365); that no "refusal" appears of record, and in assuming that a patent had been refused the attorney misstated the position of the office. In this letter, which was a year later than the first, he was told that his exact structure is not found, but that his claims were drawn broad enough to include many old evaporating structures, and his attention called to the Van Ruymbeke patent. The requirement for division was repeated and insisted upon.

The gist of the next argument, which followed several months later, is to the effect that—

"Applicant contends that any rule which denies the grant in any and all cases of one patent with both process and apparatus claims is unreasonable, and that it is outside the Commissioner's powers be-

cause it attempts to control the substance of applications and not merely the conduct of proceedings in the Patent Office, and also because its provisions would be inconsistent with the law."

He was told that it was not within the power of the examiner to waive the requirements of the rules as asked by him, and division was insisted on.

This was followed by an appeal to the board of examiners-in-chief, which the examiner refused to send forward, and he was informed that an appeal in this case was premature, for the reason that there had been no such final rejection *as is required by rule 133*; nor, indeed, had there been any "rejection;" that the case stood under the requirement for division. That—

"It is noted that neither the examiner nor the board of ex-
62 aminers-in-chief has jurisdiction over the validity of rules; over the Commissioner's power to make rules, or over the power of Congress to make laws to control the Commissioner."

His attention was called to *Ex parte* Frasch, 91 O. G., 459, which decided the points here raised against the applicant.

His prayer should be refused and the petition denied.

Respectfully submitted.

J. B. LITTLEWOOD,
Examiner, Division VI.

Washington, D. C., December 28, 1901.

63 Jan. 15, 1902. M. H.

United States Patent Office.

Ex parte Herman Frasch. Means for removing incrustation of calcium sulphate from brine-heating surfaces.

Petition.

Application filed November 13, 1899, No. 736,843.

Mr. Charles J. Hedrick for petitioner.

This is a petition from the action of the primary examiner requiring division in the above-entitled case and refusing to forward to the examiners-in-chief an appeal which has been filed.

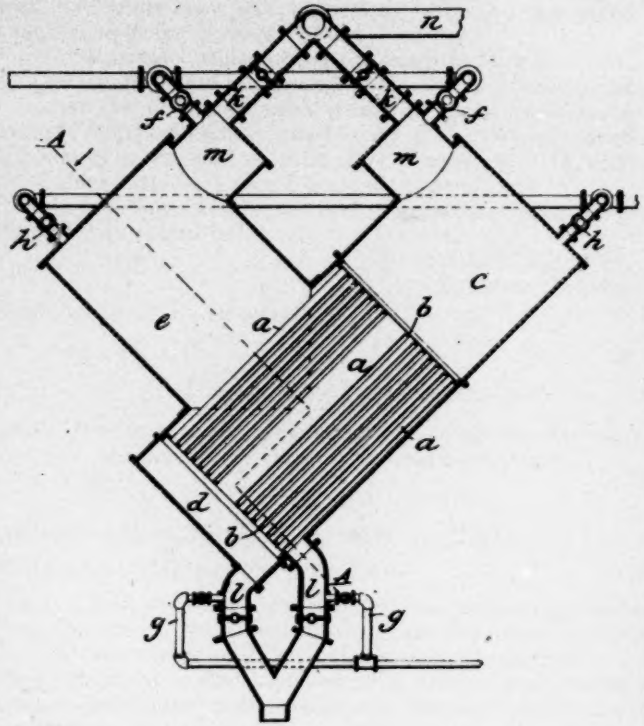
The application includes claims to a process and claims to an apparatus, and therefore the examiner properly required division and refused to act upon the merits of the claims until that requirement was complied with. The petitioner regarded this as a refusal of a patent to him and filed a request for reconsideration, which he calls a persistence in his claim, under section 4903 of the Revised Statutes, and upon a repetition of the requirement for division filed an appeal to the examiners-in-chief.

A requirement for division is not an action upon the merits of the application, but is a mere matter of form, and therefore a party has no right of appeal to the examiners-in-chief from such a requirement. It is not a refusal of a patent or patents upon the
64–67 alleged invention or inventions, but is a ruling that the application therefor has not been made in proper form. The

Patent Appeal Docket No. 201

In re application of Herman Frasch } page 69

Fig. 1.



Witnesses:
F. H. Schmitt
R. C. Mizzy.

Inventor
Herman Frasch
by Chas. J. Hedrick
his Attorney

Patent appeal Docket No. 201

In re application
of
Herman Frasch
Ser. No. 69

Fig. 2.

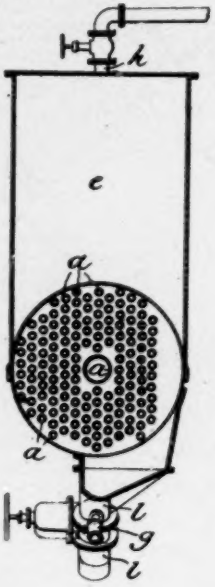
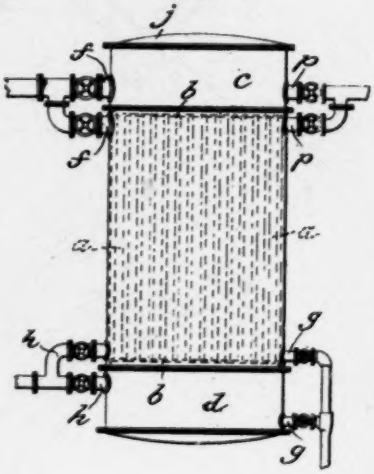


Fig. 3.



Witnesses
F. H. Schott
R. E. Muzzy.

Inventor
Herman Frasch
by Chas. J. Hedrick
his Attorney

requirement of division may be and often is made where all of the claims are admitted to be patentable. The objection is to the way in which the matter is presented and not to the matter itself. The examiner was right in refusing to forward the appeal.

The petition is denied.

F. I. ALLEN,
Commissioner.

January 23, 1902.

* * * * * * *

(Here follows drawings marked pp. 68 and 69.)

70 Amount received, $10. Chief clerk. F.

Room 258.

Herman Frasch. Means for removing incrustation of calcium sulphate from brine-heating surfaces. Filed November 13, 1899. No. 736,843.

WASHINGTON, D. C., *December* 13, 1901.

Hon. Commissioner of Patents.

SIR: Appeal is hereby taken to the board of examiners-in-chief from the decision of the primary examiner twice rejecting the claims of the above entitled application for patent.

The points of the decision upon which appeal is taken are as follows:

First. The validity of the authority exercised by the Commissioner of Patents, with the approval of the Secretary of the Interior, under the guise of establishing regulations for the conduct of proceedings in the Patent Office, of adding to or substracting from or in any way modifying the provisions of section 4888 of the Revised Statutes with respect to the substance of the written description, or, in other words, of the specification and claim, required by that section.

The primary examiner is understood in effect to affirm the validity of this authority, since otherwise there would be no ground for the decision appealed from.

Second. The validity of the authority exercised by the Commissioner of Patents in establishing, with the approval of the
70½ Secretary of the Interior, rule 41 of the rules of practice of the United States Patent Office, and in particular in establishing that portion of said rule 41 established February 1, 1900, which reads:

"Claims for a machine and the process in the performance of which the machine is used must be presented in separate applications."

The examiner's decision is understood expressly to be based upon the validity of this authority.

Third. The validity of two patents bearing to each other the following relationships severally, or any two or more, or all of them collectively—that is to say:

(*a.*) The validity of two mutually exclusive patents.

(*b*). The validity of two patents with the same essential specification, neither more nor less, only the *claim* being divided between the two patents.

(*c*.) The validity of two patents for different material reflexes or embodiments of the same conception.

(*d*.) The validity of two patents—one for a process and the other for apparatus—no matter what or how intimate the relationship between such process and apparatus may be.

(*e*.) The validity of two patents—one with that part (or those clauses) of applicant's (appellant's) claim which specifies process, and the other with that part (or those clauses) of his claim which specifies apparatus.

An affirmance of the validity of two such patents is understood to be necessarily involved in the examiner's decision.

Fourth. The validity of the authority exercised by examiner's decision in this case of compelling applicants in general, and the present applicant (appellant) in particular, either to give up a part of his claim entirely or else to accept such protection as might be afforded by two patents bearing to each other the above-recited relationships severally, or any two or more, or all of them
70¾ collectively, except, of course, that the relationship of paragraph (*e*) above would belong to patents to applicant (appellant) in particular and not to the patents of applicants in general.

Fifth. The validity of the authority exercised by the examiner's decision in this case of forbidding applicants in general, and the present applicant (appellant) in particular, to claim all and several the new and useful matters of invention required to be disclosed by him or by them respectively in order to the obtainment of any patent whatsoever, and of refusing the application unless and until a part of such claim shall be canceled.

Sixth. The validity of the authority exercised by the examiner's decision in this case of refusing applications for patents in general, and the above-entitled application in particular, upon the mere ground that the application contains both process claims and apparatus claims.

Seventh. The validity of the authority exercised in this case of refusing the above-entitled application on the grounds of the examiner's decision.

Eighth. The validity and propriety of the examiner's decision if there should be found jurisdictional authority for making the same.

Ninth. The validity and propriety of affirming and enforcing the examiner's decision and the practice represented thereby, should the opinion be held that another decision than the one appealed from would have been inconsistent with the relationship of the examiner to other officers of the Patent Office and the Department of the Interior.

The entire grounds of the examiner's decision are understood to be set forth above, but if any other ground should exist it is requested that the same may be set forth in the examiner's
71–73 answer, in order that it may be considered at the hearing of the appeal

Appellant (applicant) concedes that the claim of his application does cover both process and apparatus, certain clauses or claims being made to process and other clauses or claims to apparatus.

He contends that he has the legal right to make his entire claim with separate clauses or claims of each kind in his said application, and that the examiner's action is an invasion of his said right and *ultra vires*, so far as any authority exists in the Patent Office and the Department of the Interior (either or both) or in the Executive and Judicial branches (either or both) of the Government.

He further contends that any provision of any act of Congress authorizing such action, if any such there be, is unconstitutional and void.

The appeal fee of $10.00 is presented herewith.

Respectfully submitted.

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

* * * * * * *

74-84 In the United States Patent Office.

In re application for patent of Herman Frasch. Serial No., 736,843. Filed November 13, 1899. Improvements in means for removing incrustation of calcium sulphate from brine-heating surfaces.

WASHINGTON, D. C., *March 4th*, 1902.

To the Commissioner of Patents.

SIR: You are hereby notified of my appeal to the Court of Appeals of the District of Columbia from your decision, rendered on or about the 23d day of January, 1902, rejecting my above-entitled application and refusing me a patent for the invention set forth therein.

The following are assigned as reasons of appeal:

* * * * * * *

85-87

HERMAN FRASCH,
By CHAS. J. HEDRICK,
His Attorney.

* * * * * * *

88 In the Court of Appeals, District of Columbia.

In the matter of the application of Herman Frasch. No. 201, patent appeal docket.

It is stipulated by the Commissioner of Patents and the appellant (Herman Frasch) that the annexed official letter, dated November 13, 1899, be included in the evidence in the case and be printed by the clerk as a part of the record.

It is further stipulated that the clerk omit the following portions of the transcript in printing, namely:

(1) all endorsements on all papers; (2) pages 14 and 29 entire,

they being the petition and oath respectively; (3) all matter printed in red on pages 30, 39, 43, 45, 52; (4) all of pages 44, 53, 59, 65, 66, 67, 72, 73, 86, and 87; (5) reasons of appeal, being last nine lines of page 74, all of pages 75 to 84, both inclusive, page 85 down to, but not including, signature, said reasons of appeal being printed in the petition of appeal to this court, *ante*.

CHAS. J. HEDRICK,
Counsel for Herman Frasch.
JOHN M. COIT,
Counsel for Com'r of Patents.

89 Series of 1880. No. 736,843.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
WASHINGTON, D. C., *Nov.* 13, 1899.

SIR: I have to acknowledge the receipt of the petition, specification, oath, and drawing of your alleged improvement in means for removing incrustation of calcium sulphate from brine-heating surfaces, with fifteen dollars as the first fee payable thereon.

The papers are duly filed and your application for a patent will be taken up for examination in its order.

You will be duly advised of the examination.

Case will be taken up for examination in about six weeks.

Very respectfully,
C. H. DUELL,
Commissioner of Patents.

Herman Frasch, c/o Chas. J. Hedrick, 606 F St. N. W., city.

[Endorsed:] No. 201, patent appeals. In the matter of the application of Herman Frasch. Stipulation of counsel. Court of Appeals, District of Columbia. Filed Apr. 7, 1902. Robert Willett, clerk.

Endorsed on cover: Commissioner of Patents. No. 201, patent appeal docket. In the matter of the application of Herman Frasch. Court of Appeals, District of Columbia. Filed Apr. 4, 1902. Robert Willett, clerk.

IN THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA, MAY TERM, 1902.

In re HERMAN FRASCH. Means for Removing Incrustation of Calcium Sulphate from Brine-heating Surfaces. Patent Appeal No. 201.

Brief for Commissioner of Patents.

May it please the Court:

This purports to be an appeal from a decision of the Commissioner of Patents refusing to grant a patent. The appellant says that his application "was rejected by the Commissioner of Patents and a patent for said invention was refused him."

This statement is not supported by the record, for it is clear from an inspection thereof that a patent has not been refused to this appellant, and no claim in his application has been rejected by any tribunal of the Patent Office. The appeal is clearly out of order, and it is submitted that it should be dismissed.

FACTS OF THE CASE.

The application includes claims to a process of removing incrustations of calcium sulphate from heating surfaces, and claims to an apparatus for doing the same thing. (See pages 13 and 14, Record.) The primary examiner required division between the process and the apparatus. In other words, he held that the applicant should present in two separate applications the two separate inventions now covered by a single application. This was in strict accordance with rule 41 of the Rules of Practice, which is as follows:

> "41. Two or more independent inventions cannot be claimed in one application; but where several dis-

tinct inventions are dependent upon each other and mutually contribute to produce a single result they may be claimed in one application.

"CLAIMS FOR A MACHINE AND ITS PRODUCT MUST BE PRESENTED IN SEPARATE APPLICATIONS.

"CLAIMS FOR A MACHINE AND THE PROCESS IN THE PERFORMANCE OF WHICH THE MACHINE IS USED MUST BE PRESENTED IN SEPARATE APPLICATIONS.

"CLAIMS FOR A PROCESS AND ITS PRODUCT MAY BE PRESENTED IN THE SAME APPLICATION."

The appellant attempted to take an appeal to the examiners-in-chief from that requirement, but that appeal was not forwarded for the reason that there had been no rejection of a claim or refusal of a patent, as set forth in the Commissioner's decision on page 30 of the record. It is in view of that decision that this appeal is taken to your honors.

There has been no action by the Patent Office upon the merits of the claims presented by this appellant, since it is the settled practice of that office, founded upon what is believed to be the clear intent of the statutes, not to examine in one application and for one fee several independent inventions. It may be that every claim made by the appellant will be found to be allowable when properly presented for consideration. The objection which has been made is to the way in which the claims are presented, and not to the claims themselves.

This appeal purports to have been filed under sections 4909, 4910, and 4911, Revised Statutes, and section 9 of the act of February 9, 1893, creating this court, but is unwarranted for the reason that there has been no rejection of a claim, which is set forth therein as a prerequisite to the right of appeal. Your honors have repeatedly announced that on an appeal under those sections you will not review the actions of the Commissioner on interlocutory questions or mere matters of practice (Neill *vs.* Commissioner of Pat-

ents, 82 O. G., 749; Marshutz *vs.* Commissioner of Patents, 85 O. G., 778; *In re* Locke, 94 O. G., 432).

The question whether or not division shall be required rests in the discretion of the Commissioner of Patents, and aside from the general principle that a single patent should not cover two or more independent inventions, its determination in many cases turns merely upon office policy, having in view the proper performance of the work presented to it. The question of proper classification of patents so that the work of examining the prior art when new applications are filed may be intelligently performed is an important one to be considered in this connection. As said by the circuit court in McKay *vs.* Dibert, 19 O. G., 1351:

> "* * * the courts have no absolute control over the head of the Patent Office in the exercise of his discretion whether a given invention or improvement shall be embraced in one, two, or more letters patent."

The Supreme Court said in Bennett *vs.* Fowler, 8 Wall., 445:

> "It is difficult, perhaps impossible, to lay down any general rule by which to determine when a given invention or improvement shall be embraced in one, two, or more patents. Some discretion must necessarily be left on this subject to the head of the Patent Office. It is often a nice and perplexing question."

It is not presumed that your honors will entertain appeals from actions of the Commissioner, merely requiring division, or consider the inventions presented in this case to see if the requirement for division was justified. Nor is it presumed, therefore, that on an appeal of this kind you will consider the question as to the validity of the general rule upon the subject which has been adopted by the Commissioner of Patents. As showing the reasons upon which that rule was adopted, however, your attention is called to

the decisions of the Commissioner in *Ex parte* Boucher, 88 O. G., 545, and *Ex parte* Frasch, 91 O. G., 459.

It is a well-settled principle in patent law that a true process is independent of the apparatus by which it is carried out (Cochrane *vs.* Deener, 94 U. S., 780). As said in James *vs.* Campbell, 104 U. S., 356:

> "A patent for a process and a patent for a machine are very different things."

In Heald *vs.* Rice, 104 U. S., 736, the Supreme Court said:

> "A patent for a machine cannot be reissued for the purpose of claiming the process of operating that class of machines, because, if the claim for the process is anything more than for the use of the particular machine patented, it is for a different invention."

If it is for the mere use of the machine, it is not patentable, because not a true process.

In Tilghman *vs.* Proctor *et al.*, 19 O. G., 859, it was said:

> "It is very certain that the means need not be a machine or an apparatus. It may, as the court says, be a process. A machine is a thing. A process is an act or a mode of acting. The one is visible to the eye—an object of perpetual observation. The other is a conception of the mind, seen only by its effects when being executed or performed. Either may be the means of producing a useful result."

The Supreme Court in Rubber Co. *vs.* Goodyear, 9 Wall., 788, said:

> "Patentable subjects, as defined by the patent law, are 'any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter.' A machine may be new, and the product or manufacture proceeding from it may be old. In that case the former would be patentable and the

latter not. The machine may be substantially old and the product new. In that event the latter, and not the former, would be patentable. Both may be new, or both may be old. In the former case both would be patentable; in the latter, neither. The same remarks apply to processes and their results. Patentability may exist as to either, neither, or both, according to the fact of novelty, or the opposite. The patentability, or the issuing of a patent as to one, in nowise affects the rights of the inventor or discoverer in respect to the other. They are wholly disconnected and independent facts. Such is the sound and necessary construction of the statute."

There can be no doubt that a process and an apparatus are divisible inventions, and therefore the question whether or not they shall be divided is a matter left by law to the discretion of the Commissioner of Patents. Section 483 of the Revised Statutes gives him authority to make a rule that a process and an apparatus should be presented in separate applications.

It is submitted that this appeal should be dismissed.

JOHN M. COIT,
Counsel for Commissioner of Patents.

COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

In re FRASCH.

Decided June 23, 1902.

Mr. Charles J. Hedrick for the appellant.
Mr. John M. Coit for the Commissioner of Patents.

SHEPARD, *J.:*

The proceeding in this case began with an application by Herman Frasch, filed November 13, 1899, for a patent for a process and apparatus for removing incrustation of calcium sulphate from brine-heating surfaces.

The application concludes with six claims, the first three of which are for the process, and the last three for a particular apparatus to be used in the application of the process.

The primary examiner on December 16, 1899, notified the applicant that his specifications and claims presented two different subjects of invention, namely, process and apparatus, and, calling his attention to rule 41 requiring division in such cases, stated that—

> division on this line must be made before action upon the merits can be given.

Rule 41 reads as follows:

> 41. Two or more independent inventions cannot be claimed in one application; but where several distinct inventions are dependent upon each other and mutually contribute to produce a single result they may be claimed in one application.
>
> Claims for a machine and its product must be presented in separate applications.
>
> Claims for a machine and the process in the per-

formance of which the machine is used must be presented in separate applications.

Claims for a process and its product may be presented in the same application.

After hearing argument on behalf of the appellant, the examiner repeated the order for division, and notified the applicant that there was no appeal because there had been no rejection of his application. He therefore declined to transmit the case to the examiners-in-chief as appealed from his decision, and called applicant's attention to his right of petition to the Commissioner of Patents under rule 145, which authorizes the review by the Commissioner of any repeated ruling of an examiner—

> which does not involve the merits of the invention claimed, or the rejection of a claim.

On December 19, 1901, applicant presented a petition to the Commissioner, in which he recited the proceedings in the office and the rulings of the examiner and prayed relief.

On January 23, 1902, the Commissioner rendered the following decision upon this petition:

> This is a petition from the action of the primary examiner requiring division in the above-entitled case and refusing to forward to the examiners-in-chief an appeal which has been filed.
>
> The application includes claims to a process and claims to an apparatus, and therefore the examiner properly required division and refused to act upon the merits of the claims until that requirement was complied with. The petitioner regarded this as a refusal of a patent to him and filed a request for reconsideration, which he calls a persistence in his claim, under section 4903 of the Revised Statutes, and upon a repetition of the requirement for division filed an appeal to the examiners-in-chief.
>
> A requirement for division is not an action upon the merits of the application, but is a mere matter of form, and therefore a party has no right to appeal to

the examiners-in-chief from such a requirement. It is not a refusal of a patent or patents upon the alleged invention or inventions, but is a ruling that the application therefor has not been made in proper form. The requirement of division may be and often is made where all of the claims are admitted to be patentable. The objection is to the way in which the matter is presented and not to the matter itself. The examiner was right in refusing to forward the appeal. The petition is denied.

From that decision the appeal has been prosecuted. On behalf of the Commissioner, a motion has been entered to dismiss for want of jurisdiction in this court to entertain the appeal.

The motion to dismiss the appeal must be granted. The right to appeal to this court from a decision of the Commissioner of Patents is limited to two classes of cases: First, where an application for patent has been finally denied; and, second, where, in an interference proceeding, there has been a final determination of the question of priority of invention between adverse claimants (R. S., secs. 4911, 4912, 4913, 4914; R. S. D. C., sec. 780; act creating Court of Appeals, D. C., approved February 9, 1893, sec. 9).

There has been no denial of the application in this case. Its merits have not been considered. The examiner has declined to pass upon the application or to consider the allowance of the claims, because, in his opinion, he is bound by the terms of rule 41 to demand a division of the application—that is to say, a separate application each for the process and for the apparatus embraced in the claims of the pending application. On petition against this ruling, the examiner has been sustained by the Commissioner. It is a mere interlocutory order from which, in either class of cases, there can be no appeal, for reasons which have been heretofore stated, and need not be repeated (*Westinghouse vs. Duncan*, 2 App. D. C., 131, 134). Moreover, upon appeal from a final decision on the merits, it has been held that—

the rulings on questions of mere practice in the Patent Office will not be reviewed in this court, unless it appear that there has been an abuse in the exercise of discretion, and that substantial rights have been thereby affected or denied (*In re Marschutz*, 13 App. D. C., 228, 236; *In re Neill*, 11 App. D. C., 584, 588).

The contention of the appellant is, that rule 41 is inconsistent with the statutes providing for the grant of letters patent, and, therefore, beyond the power of the Commissioner of Patents to enact; wherefore its enforcement in this case has worked a practical denial of the application. That such is the substantial or necessary result of the ruling we cannot agree. We do not mean to say that there may not be a way in which the power to enact rule 41 might be brought in question as necessarily involving the denial of a substantial right under the law.

If there be such a way, however, it has not been pursued in this proceeding. Whether the power exists presents a question of great importance, both to applicants for patents and to the Government, if for no other reason than the doubling of fees which must necessarily result from its strict enforcement. Nevertheless, the question is one of practice, and to be determined by this court must come up, not on appeal from an interlocutory order for the enforcement of the rule, but as necessarily involved in a final decision of the Commissioner rejecting an application for a patent, as intimated in the cases last above cited.

Without intending to intimate any view in respect of the authority for, or the expediency of the purpose of, the enactment of rule 41 by the Commissioner, it may be of some interest to briefly state its history.

The rule, as it now reads, was adopted by Mr. Commissioner Duell July 18, 1899. The change consisted in adding to the rule, as it then read, the three last paragraphs which require separate applications for claims for a machine and its product, for a machine and the process in the per-

formance of which it is used, and a single application for a process and its product.

Under the general terms of the old rule 41, the practice of the Patent Office had varied from time to time under different administrations, and fallen into some confusion as claimed by Mr. Commissioner Duell in a decision wherein he set forth the reasons inducing him to amend the rule in the particulars noted (*Ex parte Boucher*, 88 O. G., 545; C. D., 1899, p. 133, decided July 11, 1899).

In that opinion he referred to the decision of the Supreme Court of the United States which recognized the general discretion committed to the head of the Patent Office in the matter of the division of applications (*Bennett vs. Fowler*, 8 Wall., 445), as well as to the manner in which that discretion had been exercised by many preceding Commissioners.

In a later case he considered the subject again, at length, in justifying the amendment that had been made (*Ex parte Frasch*, 91 O. G., 459; C. D., 1900, p. 50).

In that opinion he cited several decisions of the Supreme Court of the United States, as sustaining his view that a process and an apparatus to be used in its application, are separate and distinct inventions.

Without pursuing the subject further, the appeal will be dismissed without prejudice, for the reasons given; and this decision and the proceedings herein will be certified to the Commissioner of Patents as required by law. It is so ordered.